CLAIMS

We claim:

1. An isolated polypeptide comprising at least a portion of the amino acid sequence of SEQ ID NO:4.

2. The isolated polypeptide of Claim 1, wherein said portion comprises a region comprising at least one tyrosine.

3. The isolated polypeptide of Claim 1, wherein said portion comprises a region defined by amino acids 28 to 233.

4. A purified antibody which binds specifically to a polypeptide comprising at least a portion of the amino acid sequence of SEQ ID NO:4.

5. The purified antibody of Claim 4, wherein said antibody is a polyclonal antibody.

6. The purified antibody of Claim 4, wherein said antibody is a monoclonal antibody.

7. An isolated polynucleotide encoding the polypeptide comprising the sequence of SEQ ID NO:4.

8. The isolated polynucleotide of Claim 7, wherein said polynucleotide comprises the sequence of SEQ ID NO: 1

9. The isolated polynucleotide of Claim 7, wherein said polynucleotide is contained on a recombinant expression vector.

10. The polynucleotide sequence of Claim 9, wherein said expression vector containing said polynucleotide sequence is contained within a host cell.

11. A polynucleotide sequence that hybridizes under stringent conditions to the nucleic acid sequence of SEQ ID NO:1.

12. A method of screening a compound, said method comprising:

a) providing, in any order:

i) a peptide comprising at least a portion of the amino acid sequence set forth in SEQ ID NO:4, wherein said portion is capable of binding to a LAT binding ligand;

ii) a LAT binding ligand; and

iii) one or more compounds for screening;

b) mixing, in any order, said peptide, said LAT binding ligand and said one or more compound; and

c) measuring the extent of binding of said peptide to said LAT binding ligand.

13. The method of Claim 12, wherein said LAT binding ligand comprises a tyrosine kinase.

14. The method of Claim 13, wherein said kinase comprises ZAP-70 kinase.

15. The method of Claim 13, wherein said kinase comprises Syk kinase.

16. The method of Claim 12, wherein said peptide is part of a fusion protein.

17. A method for detecting the presence of a portion of the polypeptide having the amino acid sequence set forth in SEQ ID NO:4, said method comprising the steps of:

a) providing in any order:

i) an antibody capable of reacting with a portion of the polypeptide having the sequence set forth in SEQ ID NO:4; and

ii) a sample suspected of containing at least a portion of the polypeptide having the sequence set forth in SEQ ID NO: 4;

b) combining said antibody and said sample under conditions such that a complex is formed between said antibody and said portion of said polynucleotide; and

c) detecting said complex.

18. The method of Claim 17, wherein said antibody is a polyclonal antibody.

19. The method of Claim 17, wherein said antibody is a monoclonal antibody.

20. The method of Claim 17, wherein said sample comprises lymphocytes.

21. A method for detecting the presence of polynucleotide sequences encoding at least a portion of LAT gene in a sample, said method comprising the steps of:

a) providing in any order:

i) a polynucleotide comprising a sequence that hybridizes under stringent conditions to the nucleic acid sequence of SEQ ID NO:1; and

ii) a sample suspected of containing nucleic acid comprising the sequence of SEQ ID NO:1;

b) combining said polynucleotide and said sample under conditions such that a hybridization complex is formed between said polynucleotide and said sample nucleic acid; and

c) detecting said hybridization complex.

22. The method of Claim 21, wherein said sample nucleic acid is RNA.

23. The method of Claim 21, wherein said sample nucleic acid is DNA.

24. The method of Claim 21, wherein said sample comprises lymphocytes.

25. The method of Claim 24, wherein said detected hybridization complex correlates with expression of the LAT gene in said lymphocytes.